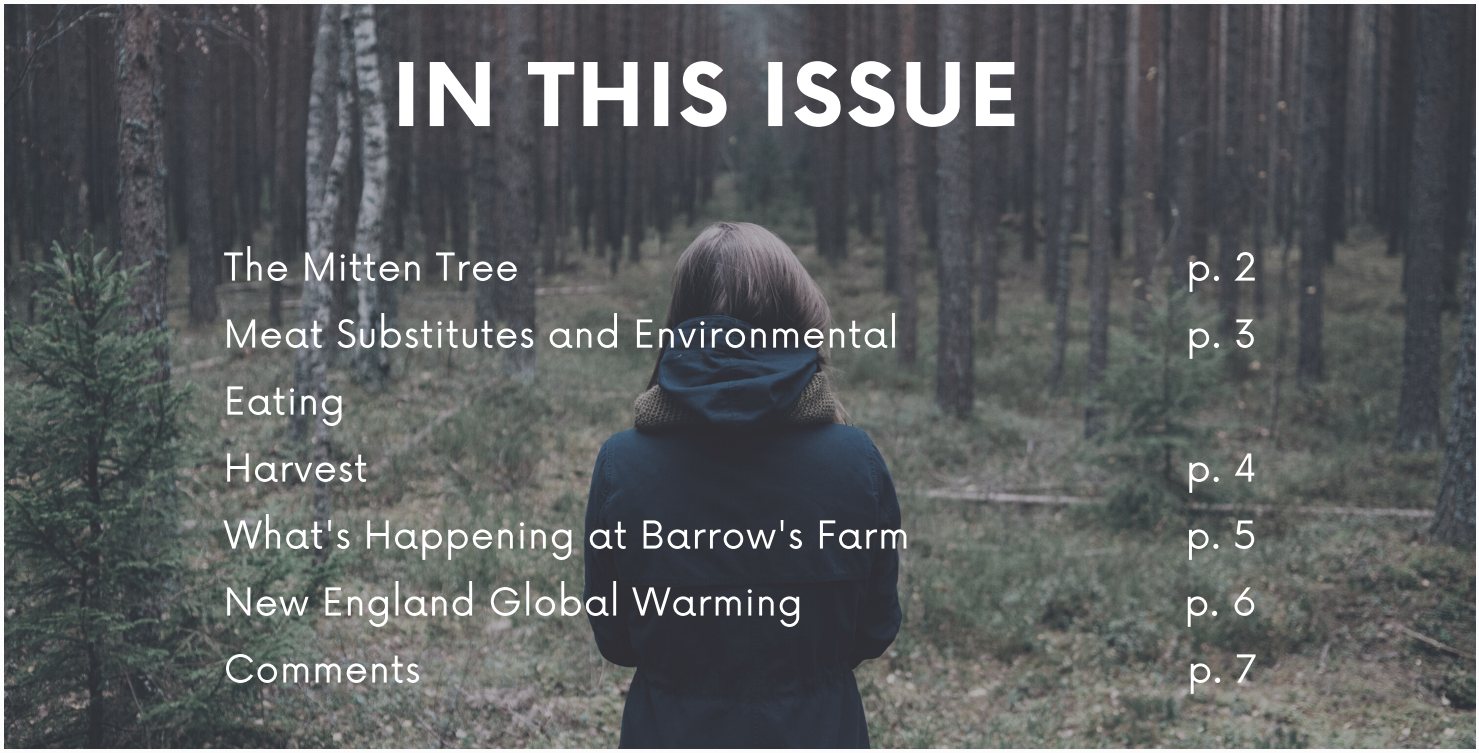
JANUARY 2020

ATTLEBORO LAND TRUST NEWS

A Monthly Newsletter on Outdoor Adventures & Land Conservation



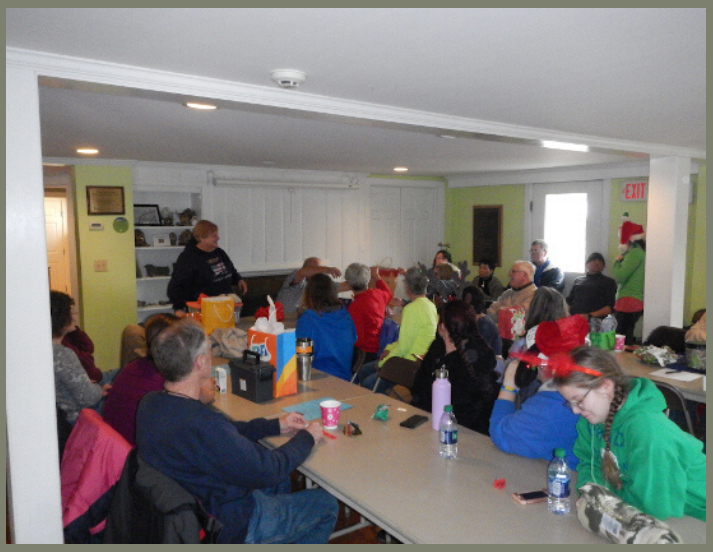
IN THIS ISSUE

YANKEE SWAP

On December 21, 2019, the Attleboro Geocachers Alliance held the Fourth Annual "Tools of the Trade" Yankee Swap in association with the Southeastern Massachusetts Association of Geocachers (SEMAG) at Oak Knoll Audubon facility. This was the 58th SEMAG event where one is held every month. The AGA hosts several every year.

We had great fun, refreshments, a Yankee Swap, and a raffle with 50 attendees, the most ever, and were able to contribute $185 dollars to the Audubon Society. We thank them for the use of their facility.

The AGA has geocaches on ALT, Audubon, and other locations in Attleboro and the surrounding area. Geocaching, the "World's Largest Treasure Hunt" is a free adventure to all. We will be having another "Geocaching 101 for Kids" event in the spring. Of course, "kids at heart" are always welcome.



Fourth Annual TOTT Geocaching Yankee Swap

Contact Us
Email: Attleborolandtrust@gmail.com
Phone: (508) 223-3060 ext. 3604

Address:
Attleboro Land Trust
P.O. Box 453
Attleboro, MA 02703

If you want to subscribe to this newsletter send your email to Attleborolandtrust822@gmail.com

The Mitten Tree

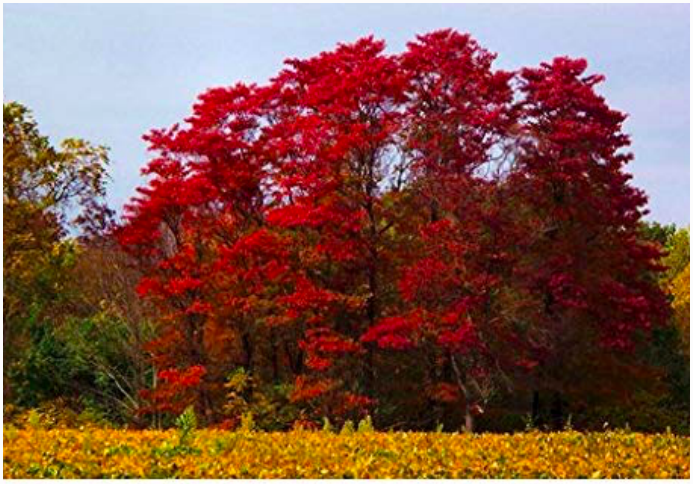
I am fairly sure that somewhere in everyone's past is a memory of a Mitten Tree. Elementary art or science class, walks in the woods at YMCA or Audubon camps or Boy Scout plant I.D., I am sure that you came across this plant. Once you knew how to identify it, it was fun to handle the aromatic leaves or put a flavored twig in your mouth and think of root beer.

The Mitten Tree or Sassafras (Sassafras albidum) is common in our woodland openings, near old fencerows or old fields. Most often in our area, it is not a large or a straight tree attaining a height of 25 to 35 feet and 20 to 30 feet wide with a maximum 12-inch trunk of deeply fissured bark. You could easily walk by this tree until you see the oddities in the leaves. Each tree has 3 or 4 distinctive leaf shapes present throughout on yellowish-green barked branches. One leaf is egg shaped, one can have three lobes and one or two are mitten shaped with both right and left hand present. It is a fun first tree to see and learn about for its historic and medicinal uses.

Sassafras grows best in rich soil in full sun and even though we view it as an under story tree, it is not a shade tolerant species. Dominated by the taller trees around it, this brittle, soft-wooded tree can be ravaged by snow and ice or damaged from falling branches that create the bent, angular trunks. In the worst of conditions, this tree when damaged can send up sucker stems from its roots to create a clonal thicket to insure survival. Another part of its survival arsenal is that it is allelopathic which means that it can produce and disseminate chemicals from its root system that suppress growth of other near-by competitors. This spreading ability is part of the reason that it is considered a "weed" tree with limited durable commercial value. Indigenous people and colonials used the oils boiled from the bark as flavorings, perfumes, burning leaves and bark as incense and medicinal uses as tinctures or tonics. Its bark was one of the first products exported by the colonists.

A basic botanic description of this small tree may not excite the average trail walker but beyond its leaf oddities, this is an amazing tree. Perhaps it is not deserving of the title "weed" as it takes its place in our ecosystems. On larger trees, the small yellow flower clusters in early May have the effect of golden clouds that are fragrant and favored by the spicebush swallowtail butterflies and imperial silk moths. In early fall, its unremarkable dark blue fruit is highly sought by gray squirrel, catbirds and bluebirds to name a few. It is also a wonderfully dependable tree in autumn as it can have three separate foliage colors of yellow, orange and red that can simply sparkle in the woods. Striking, adaptable and aromatic, it is a winning combination.

-Phil Boucher



MEAT SUBSTITUTES:

Can a Vegetarian Diet Provide Enough Protein For Your Body?

With all the buzz in the media about the new meatless Impossible Burger, the Beyond Burger, vege-burgers, and the "Meatless Monday" initiative, is it possible a vegetarian or vegan diet can provide enough protein to live a healthy life as an average omnivore? The answer is yes, there are plenty of meat substitutes that provide enough protein and are good for you. Even big mammals such as cows eat their daily amount of protein.

You may be wondering what a protein is. What does a protein actually do? Proteins are chains of amino acids that help your body repair cells and make new ones. They are also important for growth and development in children and teens. Some of the protein is made by your body while the rest needs to be consumed in food; those are called "essential" amino acids. There are nine essential amino acids. "Complete Protein Foods" contain all nine essential amino acids in appropriate amounts. Protein is found in most foods we eat therefore making it hard for us not to consume the recommended daily amount of incomplete proteins. We must insure we get enough "complete proteins" as well.

The FDA recommends that on average, an American should consume about 50 grams of protein each day. (That will vary based on your weight, ideally .36 grams of protein per pound.) Most people that follow a vegan/vegetarian lifestyle have no problem achieving this. Some vegetarians get their daily amount of protein consuming dairy products such as milk, eggs, and yogurt. Although dairy is high in protein it also is high in saturated fat and sodium as well so some vegetarians find other sources of protein.Vegans do not eat dairy so they get their protein through eating oatmeal, nuts, grains and beans, which are high in protein.

In conclusion, a proper balanced vegetarian/vegan diet does provide more than enough protein an average American adult needs to survive. A vegetarian/vegan diet does require eating foods that contain "complete proteins" and may require supplemental vitamins and minerals while a vegan diet will require supplementation of at least B-12. The American Association of Physicians recommends children not be placed on a vegan diet due to the risk of nutrient deprivation at key stages of development.

-William Smith

ENVIRONMENTAL EATING:

Will a vegan diet reduce greenhouse gasses?

It has been said that if we went to an all plant-based diet and eliminated all meat, dairy, fish, and egg production that there would be a large reduction in greenhouse gasses. However, there are several problems with that statement.

The EPA states that all agriculture in the United States contributes 9% to our GHG emissions. Of that, only 3.9% is attributable to all meat, egg, fish, and dairy production.

The National Academy of Sciences states if we went to an all plant diet, we would only reduce total GHG emissions by 2.6%, as more emissions would be needed for plant production, not including the increased need for fertilizer production which produces more GHG.

The United Nations Food and Agriculture Organization states that up to 70% of all agricultural land can only be used as grazing land for ruminant animals who convert this land into usable products. We don't have enough other land to feed our population on an all plant-based diet.

The GHG Reduction aside, the NAS has also stated that for most, an all plant-based diet will result in increased caloric intake with deficiencies in essential nutrients. In addition, animal-sourced materials are needed for the production of many industrial, household, and cosmetic products; livestock feed additives; pet foods; pharmaceutical and medical supplies; and other items.

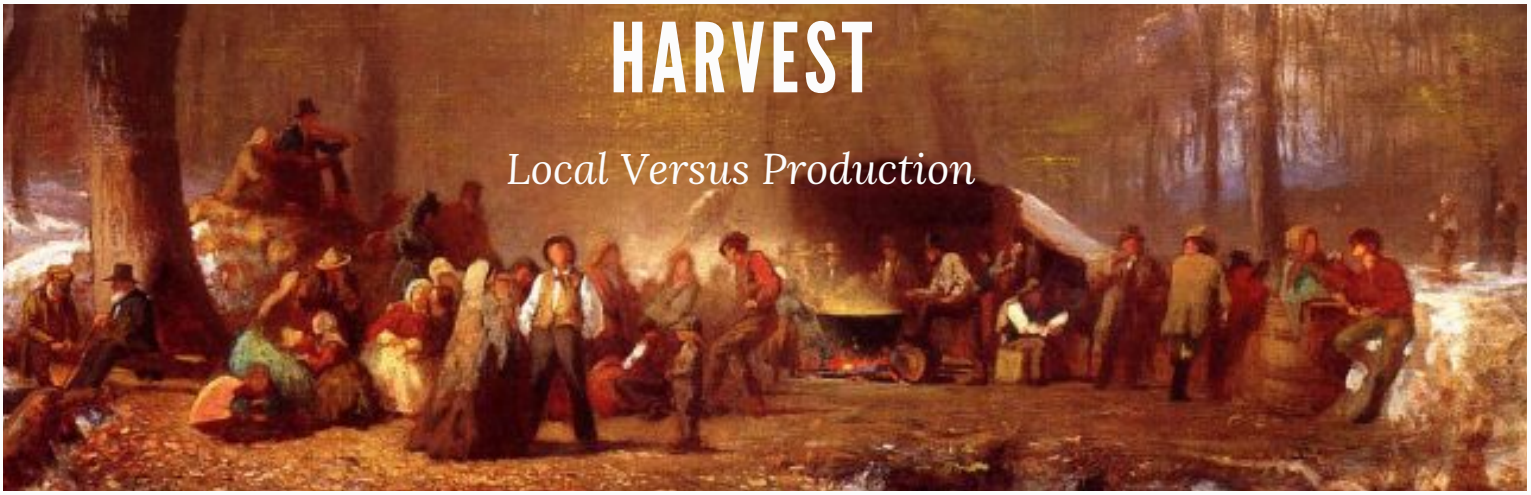
Many more studies show that this Vegan Diet GHG Conservation fallacy, was based on early erroneous data, and was incorrect. Presently, U.S. GHG emissions from all livestock production has decreased by 11.3% since 1961 while production has more than doubled.

-Bill Lewis

The Attleboro Land Trust is looking for Supporters by becoming a member, making a Tax-Deductible Contribution and/or as a Conservation Volunteer. Membership, contributions or volunteering can be done securely at Attleborolandtrust.org or by mail at Attleboro Land Trust, P .0. Box 453, Attleboro, MA 02703. Thank you for your support.

HARVEST

Local Versus Production



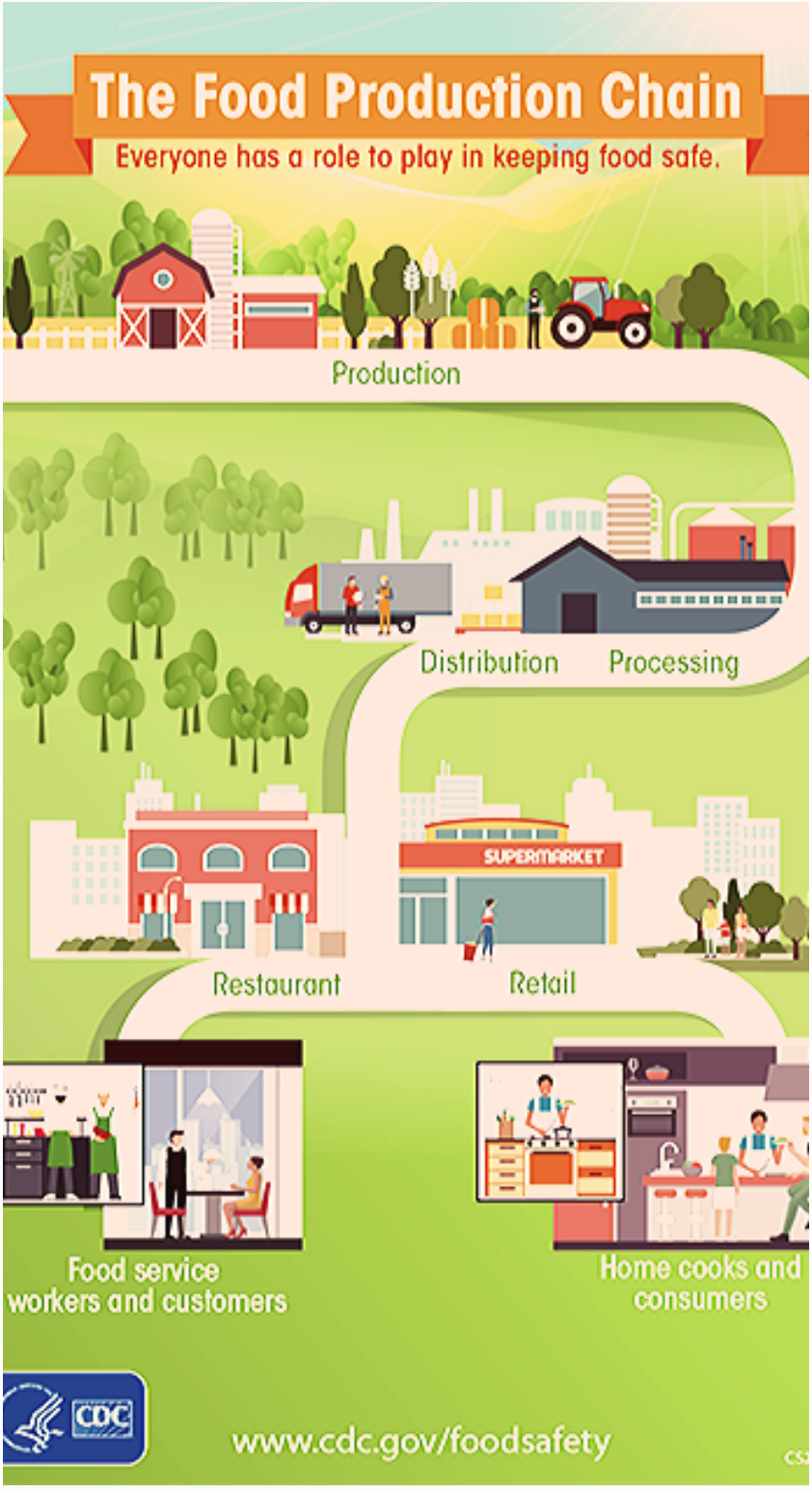
"Sugaring Off at the Camp, Fryeburg", Maine (c 1864-66), by Eastman Johnson; depicting the tradition of maple sugar making in New England. (Credits: Eclectic Light)

Local vs Production Harvest is a major conversation that many people have had over the years. Some benefits of local harvests include multiple improvements for your mental and physical health. According to Michigan State University, food bought locally tastes better, because there is the lack of traveling time. The time from being picked and shipped across the country can heavily diminish the ripeness and freshness of the fruit or vegetable eventually coming to your house and table.

However, local food is picked within hours or days of your purchase. This provides many nutrients lost to the production and transport time of commercially grown foods. Although locally grown foods are proven as the healthier option, many people use production-harvested foods because they are easier and more accessible.

Many organizations believe that it is a better option to have a local garden or easier availability to locally grown foods including the organization SLOW FOOD who said "We envision a world in which all people can access and enjoy food that is good for them, good for those who grow it and good for the planet."

-Stephen Pinto, AHS Student



WHAT'S HAPPENING AT BARROW'S FARM 1720

Making Wool and Linen

It is now the cold inclement part of the year. Since the area is not well developed yet, the Barrows are mostly self-sufficient. Most of the trade they do is by barter unless they have a contract with the Bucklins (Lydia's relatives) or others for lumber or casks. It was also a good time for hunting as they could keep any meat frozen in barrels outside rather than needing to smoke it. Though crop farming is done, the livestock had to be taken care of every day. Traditionally, males worked in the saw and coopers mills, and the females worked on producing wool and linen.

The Barrows had spinning wheels, spindles, and a loom so they were making their own cloth. They even had a dyeing vat and created natural, colorful threads. The sheep were shorn in the spring or early summer. The wool was skirted (removal of stained or poor parts), and then washed in very hot water to remove the dirt and lanolin (wool wax).

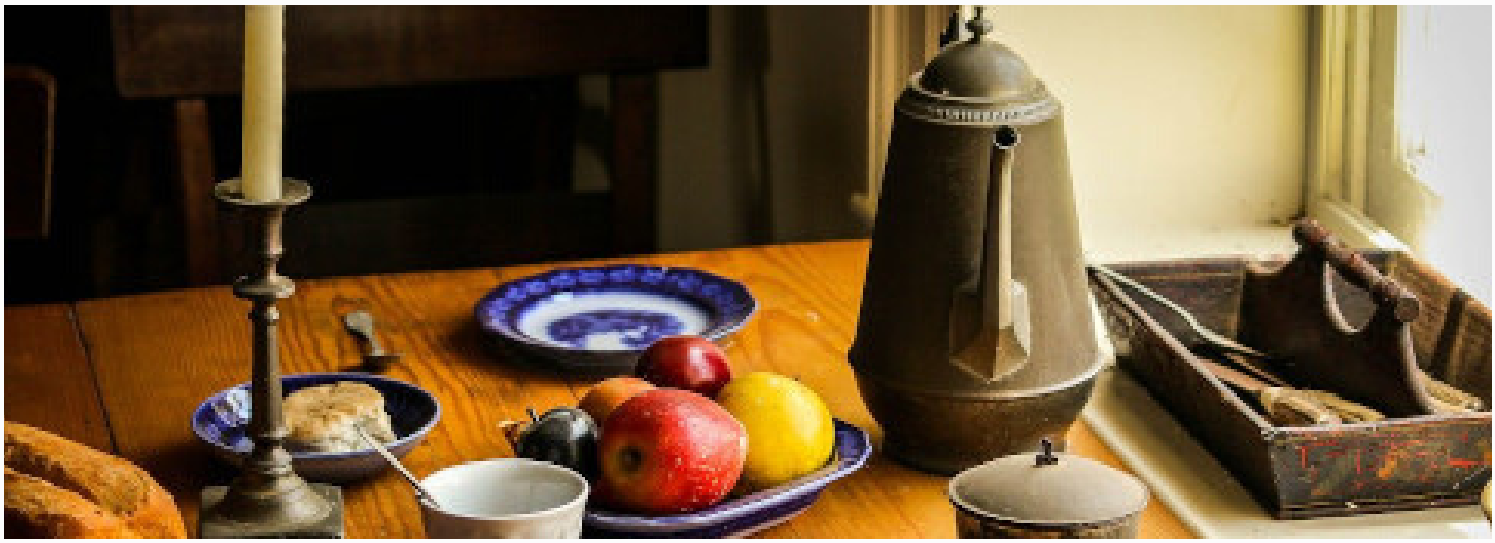
In winter months, it was combed to straighten and align the strands. Using a spinning wheel or spindle, the wool was spun into yarn. To dye the wool, first it had to be soaked in a mordant to make the dye stick to the fibers. A common dye used was indigo.

Cones of sugar, from Haiti and Jamaica, came wrapped in indigo dyed paper since it made the sugar look whiter in contrast. By soaking the paper, the dye could be retrieved for dyeing the yarn.

Colonial Taverns

Colonial taverns, inns, public houses and ordinaires were known for drinking foremost and usually served meals for travelers. The food served was usually mediocre and at a legal fixed rate. The rural taverns tended to have lesser quality and lesser fare as the people were just passing through while the urban taverns could have a more regular cliental and would advertise in local newspapers. There weren't menus but the fare would be posted daily on a slate. Since the cooking was in a hearth, most hot food was boiled or roasted.

Veal and pork were the most common meats followed by mutton, turkey, fowl, beef often salted and fish. Shellfish was the preferred seafood. Vegetables and fruits would be served in season and there was always Injun or wheaten bread plus cheese, butter, and preserves. Deserts might be served at dinner and supper. The main fare was always the ale, wine, cider, brandy and hard liquor, not included in the fixed price. Meals were at fixed times when the food was put on the tables for all. It went fast. If women came, they went to a separate room. Taverns were for men!



GLOBAL WARMING IN NEW ENGLAND

Cautionary changes in our local environment

For those of us who are older, we have noticed the changes in New England weather, wildlife, marine life, and plants from when we were younger. Turkey vultures and coyotes that didn't exist in this area are now prevalent. Insect pests are becoming more pernicious and abundant due to shorter winters and more species are coming from the south. I remember two to three foot snowfalls, which are now nonexistent. There is less total snowfall in the winter that results in water shortages around the area. Melting snows fill our reservoirs more efficiently than heavy rainfalls. Insulating snow also protects the shallow roots of sugar maples from ground freezes. The shorter winter-spring transition combined with the damaged roots means less sap for syrup production. Trees and plants are growing slower, even though we have longer growing season, as the heat stifles their growth and reproduction. The ocean around New England is raising in temperature three to four times faster than the overall world average due to Greenland glacier melting. This means that cod, lobster, and herring are moving north and black sea bass are coming into the area. They are even saying some blue crab from the Chesapeake are moving toward New England. Southern and other invasive plants are moving into the area, overwhelming native species and decreasing biodiversity. The higher temperatures in the summer are affecting our fruit and vegetable crops. If it gets too hot, apples, a large New England industry, won't turn red. In addition, invasive insects are destroying our trees and plants.

Health issues such as heat related illness and deaths, decreased air, and water quality are resulting from global warming. A recent study in RI has shown an increased percentage of heat related ER visits and deaths.

What can be done locally to help alleviate the problems? We can't change the world but we can change our little piece of it. Our open areas and woodlands clean the air and water, sequester CO2, improve the soil, prevent erosion, and protect against flooding. We need more open space and forested land put aside to protect the residential areas. That is the mission and work of the Land Trust while creating more recreational areas.

-Bill Lewis

This morning
the beautiful white heron
was floating along above the water

And then into the sky of this
the one world
we all belong to

Where everything
sooner or later
is a part of everything else

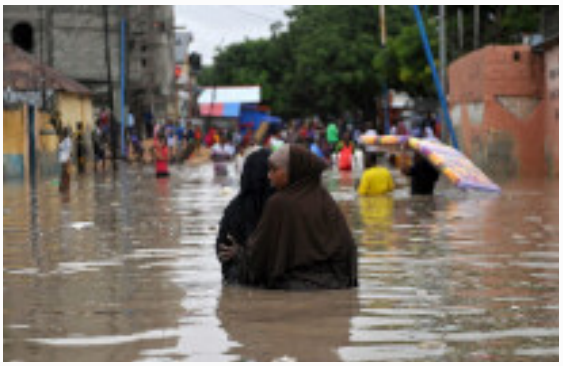
Which thought make made me feel
for a little while
quite beautiful myself.

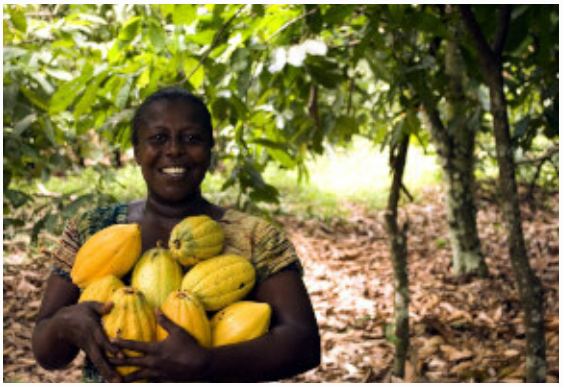
POEM OF THE ONE WORLD
by Mary Oliver

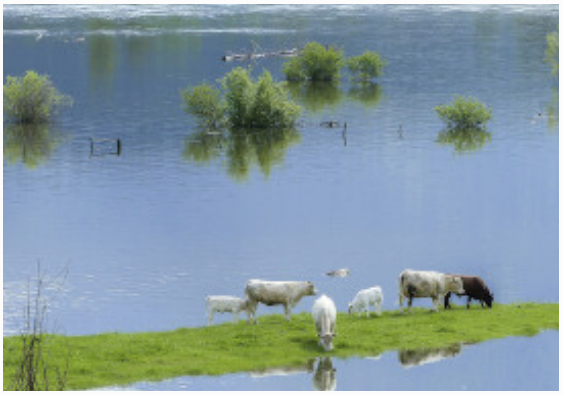
Save the Date!

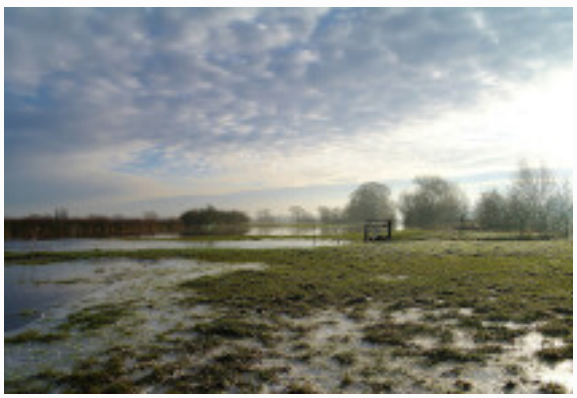
The MassLand Conservation Conference will be held on March 28th in Worcester. This is great way to learn more about how we conserve land and protect wildlife habitat. Details will be published online at Massland.org later this spring. We usually carpool and subsidize the conference fee. Topics cover forestry, invasive species and insects, organizational issues, grants available, and updates on the state of land preservation in Massachusetts.

COMMENTS









International agriculture causes 7% of global warming. The Natural Resources Conservation Service (NRCS) and the Farm Service Agency (FSA) in the U.S. Department of Agriculture (USDA) currently administer over 20 programs and subprograms that are directly or indirectly available to assist producers and landowners who wish to practice conservation on agricultural lands. If these programs are followed, agriculture can become carbon neutral.

U.S. News reports, scientists and leaders from New England and Canada gathered in Maine for an event focused on what the warming of the ocean will mean for the region.

If we stopped subsidizing farming, particularly the large farms, which receive most of the subsidy money, we would, by necessity, have more efficient and productive farms.

19 million acres of farmland in the U.S. were not farmed this year due to flooding and excess rainfall due to climate change.

The journal iScience shows researchers in South Korea have developed a system where CO2 is injected into seawater with a sodium anode making a sodium/CO2 battery that produces electricity, H2 gas to be used as fuel, and a baking soda byproduct. Waste CO2 becomes sequestered while also producing power and another fuel source. Amazing.

Italy's Education Minister Lorenzo Fioramonti stated, next year Italy will become the world's first country to make it compulsory for schoolchildren to study climate change and sustainable development.

Environmental group, *Conservation International*, is expanding a program to plant cocoa plantations in Brazil to reforest some areas and provide local populations with income.

A farmer in Georgia is raising beef cattle an environmentally friendly way instead of the industrial way. Instead of feedlots, sub therapeutic antibiotics, hormones, and fertilizer, he moves his cows from field to field each day to use natural grazing and fertilizing, and allows the growing grass the reabsorb the CO2 and methane from the manure.

If anyone doesn't want to continue receiving this newsletter, they may optout by emailing to ALToptout@gmail.com and leaving their email address.